

## **THE EFFECT OF OUTDOOR LEARNING ON THE EXPLORATORY ABILITY OF CHILDREN AGED 5–6 YEARS**

**Monica Dian Kristiadi<sup>1\*</sup>, Nia Fatmawati<sup>2)</sup>, Nopiana<sup>3</sup>**

<sup>123</sup>Universitas Lampung

Email: dian.monic032@gmail.com

Submitted: 15 Februari 2026

Accepted :25 April 2026

Published: 30 April 2026

### **Abstract**

*This study examines the effect of the outdoor learning method on the exploratory abilities of children aged 5–6 years at Harapan Bangsa Kindergarten, Jati Agung. The purpose of this study is to determine the influence of outdoor learning on early childhood exploratory abilities. This research is quantitative in nature, employing a pre-experimental design with a one-group pretest–posttest design. The data collection technique used was observation, while the data analysis technique employed was the Wilcoxon signed-rank test. Based on the research findings, there is a significant effect on the exploratory abilities of early childhood after the implementation of outdoor learning activities. The results of the Wilcoxon test analysis obtained a Z value of -3.417 with an Asymp. Sig. (2-tailed) value of 0.001, indicating that the probability is below 0.05 ( $p < 0.05$ ). Thus,  $H_a$  is accepted, meaning that there is a significant effect on the exploratory abilities of children aged 5–6 years after the implementation of outdoor learning activities.*

**Keywords: outdoor learning, exploration skills, early childhood**

### **Abstrak**

Penelitian ini mengkaji tentang pengaruh metode *outdoor learning* terhadap kemampuan eksplorasi pada anak usia 5-6 tahun di TK Harapan Bangsa Jati Agung. Penelitian ini bertujuan untuk mengetahui pengaruh *outdoor learning* terhadap kemampuan eksplorasi pada anak usia dini. Penelitian ini adalah penelitian kuantitatif dengan jenis penelitian pre-eksperimental dan desain *one-group pretest-posttest design*. Teknik pengumpulan data yang digunakan yaitu observasi. Teknik analisis data yang digunakan dalam penelitian yaitu uji *wilcoxon signed rank test*. Berdasarkan hasil penelitian, menunjukkan adanya pengaruh yang signifikan dalam kemampuan eksplorasi pada anak usia dini setelah diberikan perlakuan dengan aktivitas *outdoor learning*. Hasil analisis data uji *wilcoxon* memperoleh nilai  $Z = -3.417$  dengan *Asymp. Sig. (2-tailed) = 0.001* menunjukkan bahwa probabilitas berada dibawah 0,05 ( $p < 0,05$ )  $H_a$  diterima, yang berarti terdapat pengaruh kemampuan eksplorasi pada anak usia 5-6 tahun setelah diterapkannya aktivitas *outdoor learning*.

**Keywords: outdoor learning, kemampuan eksplorasi, anak usia dini**

## **INTRODUCTION**

Early childhood is a period of rapid development, often referred to as the golden age, thus requiring appropriate stimulation in various aspects of development, especially cognitive development. One important form of cognitive development is exploratory ability, which refers to a child's ability to observe, understand, discover concepts, and solve problems through interaction with the environment.

Children are natural imitators; during early childhood, they have a strong curiosity about anything, they enjoy observing, asking questions, and learning things that are concrete, interesting, and new (Marlina et al., 2019). Early childhood has distinctive characteristics, including physical, cognitive, social, and moral aspects. Experiences gained through curiosity in early childhood greatly influence subsequent development (Rohmah, 2018). Therefore, engaging experiences for children can be built through enjoyable learning activities that attract their interest, enabling children to develop logical and critical thinking as well as problem-solving skills based on their curiosity. This is part of cognitive development in early childhood.

Jean Piaget stated that "children actively construct their understanding of the world through four stages of cognitive development," one of which is the preoperational stage at the age of 2–7 years (Warmansyah et al., 2023). At this stage, it becomes the beginning for early childhood to build knowledge through experience. The knowledge acquired by children also comes from social interaction processes, by learning from other individuals (Padmonodewo, 2000). By coordinating observations and experiences obtained, an individual constructs thinking through new ideas.

Based on observations conducted at TK Harapan Bangsa, it was found that the learning process tended not to provide opportunities for children to

engage in direct exploratory activities, such as independently observing natural objects in their surroundings. Exploratory abilities had not developed optimally, and objects around the children had not been utilized as opportunities for them to explore the school environment. Children's curiosity to show interest in exploratory activities was lacking, and their concentration during learning activities was not optimal.

One method that can be used to overcome these problems is outdoor learning, which is learning conducted outside the classroom by utilizing the environment as a learning resource. This method allows children to learn directly through real experiences, thereby improving their exploratory abilities. The exploratory ability of children aged 5–6 years should include several important aspects as part of their development.

Children aged 5–6 years should be able to explore independently using media available around them to develop fine motor and cognitive skills (Fuadi, 2021). Exploratory ability also includes the use of the senses to feel, touch, smell, mix, and compare objects in their environment, and to use these experiences as new knowledge. The exploratory ability of children aged 5–6 years should also demonstrate curiosity and initiative to carry out independent exploratory activities. Children are encouraged to try new things in their own way and to show creativity and imagination in exploratory play (Agustina et al., 2023).

Exploratory ability is one aspect related to cognitive development, including understanding, observation, discovery of new concepts, and problem solving. In this exploration, the discovery of new concepts is important because through exploration, children are helped in constructing new knowledge through interaction with the environment. Exploration also helps children form concepts that were previously unknown by collecting

information, facts, connecting experiences, and formulating simple hypotheses.

The selection of learning methods needs to be considered; one type of learning related to exploration is outdoor learning. Outdoor learning is a method used by teachers in the learning process conducted outside the classroom. Outdoor learning is a teaching and learning method that invites children to learn outside the classroom by utilizing the surrounding environment as a learning medium (Rahimawati, 2024).

Outdoor learning is a form of activity outside the classroom that utilizes objects in the natural environment as learning media (Maritza, 2023). Learning outside the classroom (outdoor learning) does not merely move the learning process outside; rather, it provides opportunities for children to explore the natural environment directly and observe various environmental objects so that their understanding can be achieved. Based on this, this study aims to determine whether there is an effect of outdoor learning on the exploratory ability of children aged 5–6 years.

## **METHODS**

The type of research used is quantitative, because the data used in this study are in the form of numerical data obtained through the data collection process. The research design used is an experimental design to examine the effect of the treatment on the research subject, specifically using a one-group pretest-posttest design. Members of the population to be studied may consist of living or non-living objects, which essentially have measurable or observable characteristics. Therefore, the population in this study consists of all Group B children at TK Harapan Bangsa, totaling 15 children. The data analysis technique used to test the hypothesis in this study is the Wilcoxon Signed Rank

Test, which is used to measure differences between two conditions within the same group.

## RESULTS AND DISCUSSION

The results of the study show that outdoor learning activities have a significant effect on improving the exploratory abilities of children aged 5–6 years, as evidenced by statistical analysis and field findings. The Wilcoxon test indicates differences between conditions before and after the treatment. Descriptively, the average score of exploratory ability increased from 60 in the pretest to 107 in the posttest, indicating a change in developmental status from the “Beginning to Develop (MB)” category to the “Very Well Developed (BSB)” category. This significant effect occurs because each outdoor learning activity and play process requires children to interact directly with real objects in their surrounding environment, allowing their exploratory abilities to develop naturally.

The pretest scores of children’s exploratory abilities are used to identify the initial level of ability before the treatment is given. The data obtained serve as a basis for assessing the extent of children’s exploratory abilities prior to the implementation of the treatment. Based on the results of the recapitulation of observations conducted over two meetings, the percentage of the development of children’s exploratory abilities is presented in the following table as an illustration of the initial condition of exploratory abilities of children at TK Harapan Bangsa.

Table 1. Pretest Interval Scores

<b>N</b> <b>o</b>	<b>Kategori</b>	<b>Interval</b>	<b>Frekuensi</b>	<b>Persentase</b> <b>(%)</b>
----------------------	-----------------	-----------------	------------------	---------------------------------

1.	BB	29-50	2	13.3%
2.	MB	51-72	11	73.3%
3.	BSH	73-94	2	13.3%
4.	BSB	95-116	0	0.00%
<b>Jumlah</b>			<b>15</b>	<b>100.0%</b>

Based on the recapitulation of posttest observation results conducted over two meetings, there were 15 children categorized into several groups, namely: Very Well Developed (BSB) with a score of 4, Developed as Expected (BSH) with a score of 3, Beginning to Develop (MB) with a score of 2, and Not Yet Developed (BB) with a score of 1. The highest score (NT) obtained was 116, calculated from 29 items multiplied by the maximum score of 4, and the lowest score (NR) was 29, calculated from 29 items multiplied by the minimum score of 1.

The results of the observation recapitulation after the treatment through outdoor learning showed the percentage of children's exploratory abilities, which are presented in the following table:

Table 2. Posttest Interval Scores

No	Kategori	Interval	Frekuensi	Persentasi (%)
1.	BB	29-50	0	0.00%
2.	MB	51-72	0	0.00%
3.	BSH	73-94	2	13.3%
4.	BSB	95-116	13	86.7%
Jumlah			15	100.0%

The results by dimension show that before the treatment was given, the pretest had an average score of 60 in children's exploratory abilities, indicating that their abilities were in the Beginning to Develop (MB) category. After the treatment through outdoor learning, the average score increased to 107, indicating an improvement to the Very Well Developed (BSB) category. This

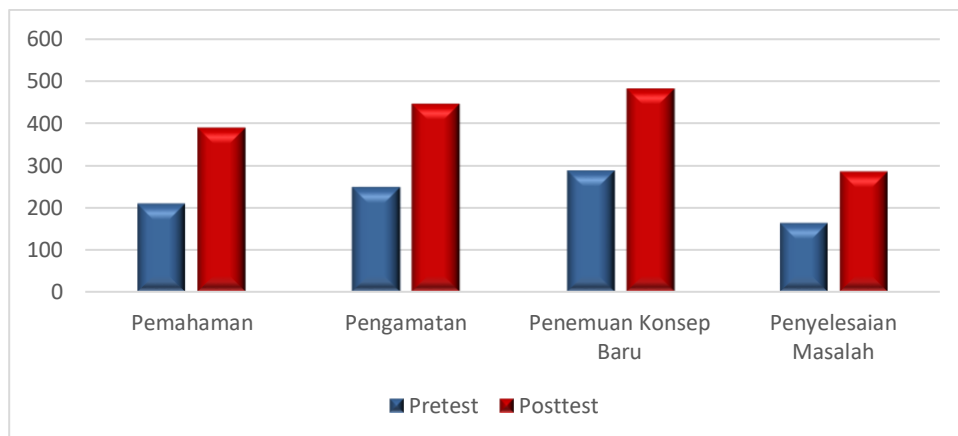
improvement shows that outdoor learning activities have a positive effect on children's exploratory abilities.

Table 3. Average Calculation of Dimensions in Exploratory Ability

Dimensi	Pretest	%	Posttest	%
Pemahaman	209,5	49%	389	92%
Pengamatan	248,5	51%	447	93%
Penemuan Konsep Baru	287,5	53%	483,5	89%
Penyelesaian Masalah	163,5	54%	285,5	95%

The following is a comparison chart of the percentage of each dimension during the pretest and posttest:

Figure 1. Column Chart of Pretest–Posttest Dimensions of Exploratory Ability



Based on the diagram above, it can be seen that the pretest and posttest results of 15 children show differences through fairly significant percentage increases in each dimension of exploratory ability. In the understanding dimension, the percentage increased from 49% in the pretest to 92% in the posttest, an increase of 43%. In the observation dimension, it increased from 51% in the pretest to 93% in the posttest, an increase of 42%. In

the discovery of new concepts dimension, it increased from 53% in the pretest to 89% in the posttest, showing an increase of 36%. In the problem-solving dimension, the initial score of 54% in the pretest increased to 95% in the posttest, showing a difference of 41%. These data indicate that after the implementation of outdoor learning, all dimensions of children's exploratory abilities experienced positive development. Pendekatan *outdoor learning* dengan pemanfaatan bahan yang tersedia alam mendukung pengembangan he outdoor learning approach, utilizing materials available in nature, supports the development of exploratory abilities through direct interaction with the environment, as found in journal results (Oktavianingtyas, 2025). With proper planning, implementation, and evaluation, outdoor learning improves the overall quality of learning and aligns with the characteristics of early childhood, who are active and have strong curiosity. Activities such as nature observation, simple experiments, and role-playing outside the classroom have proven to enhance exploration of real objects, efficiency, and children's interest in enjoyable learning. These results confirm that outdoor learning makes the learning process more contextual and child-centered.

The results of this study are consistent with several studies (Ismawati et al., 2013), which focus on the implementation of outdoor learning to improve science skills and creativity in children aged 4–6 years. The study found that outdoor activities lead to improved thinking skills through direct observation. Children become more active in exploring various natural phenomena such as plants and weather. In line with this, other studies show that outdoor learning also has a significant effect on children's creativity and motor development (Kamaliah, 2024). Learning outside stimulates children to experiment freely. The results reveal that through outdoor activities, children demonstrate the ability to generate new ideas through interaction with the natural environment.

The development of exploratory abilities can be carried out through the concept of learning while playing, which can take place in natural

surroundings, the school environment, or field trips that provide varied and enjoyable learning stimulation (Tanfidiyah, 2021). This is reinforced by research (Wilandari, 2025), which shows that the outdoor learning method significantly improves science skills and strong curiosity in children aged 5–6 years. Thus, activities such as identifying plants and asking simple questions enrich sensory exploration and develop children's cognitive abilities.

Outdoor learning is not merely moving learning activities outside the classroom; rather, it is a deliberately designed learning strategy that enables children to learn through direct experience, observe, explore, and actively participate in both natural and school environments (Zulfriman et al., 2024). Learning conducted outside the classroom provides concrete, real, and contextual learning experiences for children. Outdoor learning activities emphasize collaboration and direct experience, in contrast to learning methods that focus solely on material. Through independent or group exploration activities, children not only gain enjoyment but also learn to understand new concepts. These experiences form knowledge through real activities carried out by children.

## **CONCLUSION**

Based on the results of the study, outdoor learning activities have a significant effect on the exploratory abilities of early childhood at TK Harapan Bangsa in the 2025/2026 academic year. Overall, outdoor learning activities have a positive and significant impact on improving children's exploratory abilities. The outdoor environment provides richer stimulation compared to conventional classrooms, encouraging children to be more active in directly interacting with objects of study. This is supported by the results of data analysis using the Wilcoxon test, which obtained a value of  $Z = -3.417$  with Asymp. Sig. (2-tailed) = 0.001 ( $p < 0.05$ ), indicating that  $H_a$  is accepted and confirming a

difference before and after the treatment. Children show changes. Outdoor learning activities create an enjoyable and collaborative learning atmosphere that stimulates children's exploratory abilities.

## ACKNOWLEDMENT

We would like to express our sincere gratitude to TK Harapan Bangsa Jati Agung for their invaluable support and cooperation throughout the completion of this work. Their contribution, encouragement, and assistance have been greatly appreciated and have played an important role in the success of this project.

We are especially thankful to the teachers, staff, and students of TK Harapan Bangsa Jati Agung for their participation, openness, and willingness to collaborate. Without their support, this work would not have been possible.

We hope that this work will be beneficial and contribute positively to the development of education, particularly in early childhood learning.

## REFERENCES

- Agustina, T., Waluyo, B., & Wawan, A. (2023). Implementasi Bermain Eksplorasi Dalam Mengembangkan Kreativitas Anak Usia 5-6 Tahun Di Tk Tunas Harapan Kecamatan Merbau Mataram Lampung Selatan Tahun Pelajaran 2022/2023. *Jurnal Keguruan Dan Ilmu Pendidikan*, 17–23.
- Fuadi, N. (2021). Pengembangan Kemampuan Eksplorasi Anak Usia 5-6 Tahun melalui Kegiatan Bermain Plastisin di TKN Pembina Syamtalira Bayu. *ITQAN: Jurnal Ilmu-Ilmu Kependidikan*, 12(2), 323–336. <https://doi.org/10.47766/itqan.v12i2.195>
- Ismawati, P., Pendas, S., Paud, K., Pascasarjana, P., & Surabaya, U. N. (2013). *MENINGKATKAN PERKEMBANGAN SAINS DAN KREATIVITAS ANAK USIA DINI MELALUI OUTDOOR LEARNING*. 1–12.
- Kamaliah, L., & Hapsari, M. T. (2024). *Manfaat Penerapan Sistem Belajar Di Luar Kelas ( Outdoor learning ) Untuk Anak Usia Dini*. 12(2), 113–123.
- Maritza, R., & Hariyanti, D. P. D. (2023). Pembelajaran Outdoor untuk Menstimulasi Perkembangan Berpikir Kritis pada Anak Usia Dini. *Seminar Nasional" Transisi PAUD Ke SD Yang Menyenangkan"*.
- Marlina, A. I., Soni, N. N., & Rizal, S. (2019). Upaya Meningkatkan Pengetahuan Sains

- Melalui Pendekatan Eksplorasi Lingkungan Sekitar Untuk Anak Usia Dini. *Tarbiyah Al-Aulad* |, 4(1), 98. <http://riset-iaid.net/index.php/TA>
- Oktavianingtyas, R. G. (2025). *MANAJEMEN OUTDOOR LEARNING BERBASIS ALAM DALAM PENGEMBANGAN MUTU PEMBELAJARAN DI PAUD SABILA PONOROGO*.
- Padmonodewo, D. S. (2000). *PENDIDIKAN ANAK PRASEKOLAH* (1st ed.). PT RINEKA CIPTA.
- Rahimawati, Sri Wahyuni, M. (2024). Pembelajaran Outdoor Learning Berbantuan Lingkungan Sekitar Sekolah. *Journal of Education Research*, 5(4), 5868–5873.
- Rohmah, U. (2018). Pendidikan Karakter pada Anak Usia Dini. *Al-Athfal Jurnal Pendidikan Anak*, 4(1), 85–102. <https://doi.org/10.33550/sd.v5i2.89>
- Tanfidiyah, N. (2021). Pengembangan Kreativitas Anak Usia Dini Melalui Eksplorasi di TK ABA Keringan Sleman Yogyakarta. *KINDERGARTEN: Journal of Islamic Early Childhood Education*, 4(1), 99–109. <http://dx.doi.org/10.24014/kjiece.v4i1.12575>
- Warmansyah, J., Utami, T., Faridy, F., Marini, T., & Ashari, N. (2023). *Perkembangan Kognitif Anak Usia Dini* (1st ed.). Bumi Aksara. <https://books.google.co.id/books?id=aYLeEAAAQBAJ>
- Wilandari, S. (2025). *Pengaruh Outdoor Learning Terhadap Kemampuan Sains Anak Usia 5-6 Tahun di TK Negeri Pembina Air Hangat Timur Kabupaten Kerinci*.
- Zulfriman, R., Kustanti, M., & Amelia, R. (2024). Implementasi Metode Outdoor Learning dalam Membentuk Lingkungan Pembelajaran yang Efektif dan Menyenangkan. *Jurnal Pendidikan Dan Riset*, 2(2), 70–76. <http://jurnaltarbiyah.uinsu.ac.id/index.php/ami>